



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Takumi ITO, et al.

Title: TRANSMITTER APPARATUS, RECEIVER APPARATUS, AND
RADIO COMMUNICATION SYSTEM

Appl. No.: 10/564,552

Filing Date: 01/13/2006

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

Document A1 is a U.S. counterpart of Document A4.

The relevance of Documents A4, A5 and A6 is described in the present specification.

Documents A2, A3, A7 and A8, listed on the attached PTO/SB/08, were cited as being relevant during the prosecution of the corresponding International application. A copy of the International Search Report is attached setting forth the portion of each document considered relevant by the examiner. An English translation of the foreign-language documents is not readily available; however, the absence of a translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP §609). English language abstracts are attached.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or

even entirely missing, the Commissioner is authorized to charge the unpaid amount to
Deposit Account No. 19-0741.

Respectfully submitted,

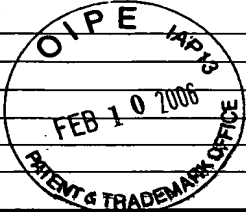
Date: February 10, 2006

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: February 10, 2006 <i>(use as many sheets as necessary)</i>				Complete if Known <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/564,552</td> </tr> <tr> <td>Filing Date</td> <td>01/13/2006</td> </tr> <tr> <td>First Named Inventor</td> <td>Takumi ITO</td> </tr> <tr> <td>Group Art Unit</td> <td>Unassigned</td> </tr> <tr> <td>Examiner Name</td> <td>Unassigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>016778-0503</td> </tr> </table>		Application Number	10/564,552	Filing Date	01/13/2006	First Named Inventor	Takumi ITO	Group Art Unit	Unassigned	Examiner Name	Unassigned	Attorney Docket Number	016778-0503
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Examiner Name	Unassigned																
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U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	2003/0003937	A1	OHKUBO et al.	01-02-2003	

U.S. PATENT APPLICATION DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Application Document		Name of Patentee or Applicant of Cited Document	Filing Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A2	JP	2004-248075	A	NTT IDO TSUSHINMO KK	09-02-2004		A
	A3	JP	2004-056569	A	MATSUSHITA DENKI SANGYO KK	02-19-2004		A
	A4	JP	2003-078480	A	NTT DOCOMO INC.	03-14-2003		A
	A5	JP	57-155856		FUJITSU LTD.	09-27-1982		A
	A6	JP	2001-103041	A	KOKUSAI DENKI KK	04-13-2001		A

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶	
	A7	K. MIYASHITA et al., "Eigenbeam-Space Division Multiplexing (E-SDM) in a MIMO Channel," The Institute of Electronics, Information and Communication Engineers, Vol. 102:86, 24 May 2002; pp. 13-18.	A	
	A8	Y. TENG et al., "Performance Analysis of SDM-OFDM System with Adaptive Modulation Method over MIMO Channels," The Institute of Electronics, Information and Communication Engineers, Vol. 103:66, 23 May 2003; pp. 75-82.	A	

Examiner Signature	Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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